

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method for identifying a compound that modulates signal transduction in taste cells, the method comprising the steps of:

(i) contacting a cell which expresses a taste cell specific G-protein alpha subunit polypeptide and a taste cell specific G protein coupled receptor with the compound, the G-protein alpha subunit polypeptide comprising a sequence of SEQ ID NO:2; wherein the G-protein alpha subunit polypeptide is a subunit of a heterotrimeric G-protein which binds GTP and the G-protein alpha subunit polypeptide is recombinantly expressed in the cell, wherein the taste cell specific G protein coupled receptor comprises the amino acid sequence selected from the group consisting of SEQ ID NOs: ~~6, 7, 8,~~ 12, 13, and 14; and

(ii) determining a functional effect of the compound upon the cell expressing the taste cell specific G-protein alpha subunit polypeptide and the taste cell specific G protein coupled receptor, thereby identifying a compound that modulates signal transduction in taste cells.

2-3. (Canceled)

2 ~~4~~. (Original) The method of claim 1, wherein the functional effect is a chemical effect.

5. (Canceled)

3 ~~6~~. (Previously Presented) The method of claim 1, wherein the functional effect is determined by measuring increased or decreased binding of radiolabeled GTP to the G-protein alpha subunit polypeptide or to a G protein comprising the G-protein alpha subunit polypeptide.

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PATENT

4. (Original) The method of claim 1, wherein the G-protein alpha subunit polypeptide is from a mouse, a rat or a human.

8-24. (Canceled)